

REMARKS

This application has been carefully reviewed in light of the Office Action dated January 8, 2008. Claims 1, 4, 7, 14-17 and 21-24 remain in this application. Claims 1, 7, 14, and 16-17 are the independent Claims. Claims 1 and 4 have been amended. It is believed that no new matter is involved in the amendments or arguments presented herein. Reconsideration and entrance of the amendment in the application are respectfully requested.

Allowable Subject Matter

On page 9 of the Office Action, Claims 7 and 14-17 were indicated to be allowed. Applicants thanks the Examiner and formally recognizes the allowed Claims 7 and 14-17.

Non-Art Based Rejections

Claims 1, 4 and 21-24 were rejected under 35 U.S.C. §112, first paragraph, for failing to comply with the written description requirement.

In response, Claims 1 and 4 have been amended to address the concerns expressed in the Office Action. Reconsideration and withdrawal of the above § 112 rejections are respectfully requested.

Art-Based Rejections

Claims 1, 4, 21 and 22 were rejected under 35 U.S.C § 103(a) over Japanese Publication No. JP 11-200561 (Yoshitaka) in view of U.S. Patent No. 6,525,264 (Ouchida) and U.S. Patent No. 5,505,788 (Dinwoodie); Claim 23 was rejected as obvious over Yoshitaka in view of Ouchida, Dinwoodie and European Patent Application No. EP 1071139 A2 (Nakazima); Claim 24 was rejected as obvious over Yoshitaka in view of Ouchida, Dinwoodie and Japanese Application Publication No. JP 2000-174313 (Masahiro).

Applicant respectfully traverses the rejections and submits that the claims herein are patentable in light of the clarifying amendments above and the arguments below.

The Mimura Reference

Mimura is directed to a mounting method of a horizontal-roofing roof. Fastener 214 engages roof panel 209 to upper end engaging portion 107 while retaining clip 206 is nailed to the roof board 204 by a nail (*See Mimura; Abstract and FIG. 3*).

The Dinwoodie Reference

Dinwoodie is directed to a photovoltaic roofing assembly including a plurality of photovoltaic modules 204, 206, 208 provided above pre-formed spacers 212, 214, 216 and disposed on top of roofing membrane 202 (*see Dinwoodie; Abstract, FIG. 2A and Col. 7, lines 1-5*).

The Ouchida Reference

Ouchida is directed to a thin-film solar cell module. A thermal insulation layer 404 may be a thermal insulator or dry air layer (*see Ouchida; Abstract, FIG. 12 and Col. 18, lines 34-44*).

The Yoshitaka Reference

Yoshitaka is directed to a photocell mounted within a recess formed below the uppermost surface of a cell frame (*see Yoshitaki; Abstract, Paragraph [0022] and FIG. 2, 3 and 7*).

The Nakazima Reference

Nakazima is directed to mounting a photovoltaic cell module to a tile body (*see Nakazima; Abstract and Paragraphs [0019]-[0022]*).

The Masahiro Reference

Masahiro is directed to a solar cell module that enables a worker to stand on the module when the worker installs and fixes the module (*see Masahiro; Abstract*).

The Claims are Patentable Over the Cited References

The present application is generally directed to solar cell technology for building applications.

As defined by amended independent Claim 1, a solar cell module includes a base member. A solar cell is provided on an uppermost surface of the base member such that a lower surface of the solar cell is positioned above and is mounted to the uppermost surface of the base member. An insulating support member is provided on a lower surface of the base member, and configured to be laid together with tiles on the roof of a building. The base member is rectangular and has a ridge-side surface projecting downwards with respect to a surface of a roof panel for mounting the solar cell module, an eaves-side surface, a trough-side surface having a trough section and an anti-trough side surface having a trough section. The solar cell module further includes an under-lapping part continuously provided on the trough-side surface of the base member to extend from a ridge side of the roof to an eaves-side thereof. The under-lapping part also overlaps a lower portion of a side edge portion of an adjacent tile. A projecting part is continuously provided on the anti-trough side surface of the base member to extend from the ridge-side to the eaves-side of the roof. The projecting part overlaps an upper portion of a trough section of the adjacent tile. The width of the projecting part is less than the width of the trough section of the adjacent tile. The projecting part contacts a rising portion of the trough section of the adjacent tile.

The applied references do not disclose or suggest the features of the present invention as defined by amended independent Claim 1. In particular, the applied references do not disclose or suggest, "the width of the projecting part is less than the width of the trough section of the adjacent tile and the projecting part contacts a rising

portion of the trough section of the adjacent tile," as required by amended independent Claim 1.

Yoshitaka discloses in FIG. 11 that the width of overlap 12B of cell A is greater than the width of a trough section of drain board 7A of the roofing tile B. Furthermore, overlap 12B does not contact the rising portion of drain board 7A. Moreover, FIG. 3 of Yoshitaka merely shows the photovoltaic cell maintenance tile A without teaching how it is configured to any other tile. FIG. 7 teaches a solar module A that apparently abuts a tile B, but does not disclose any part that is overlapped by the projecting portion of module A.

In contrast, the present invention requires the width of the projecting part to be less than the width of the trough section of the adjacent tile and the projecting part is in contact with a rising portion of the trough section of the adjacent tile. This feature prevents water leakage at the junction between the solar cell module and tile, even if rainwater splashes in the trough section and a gusty wind blows it into the trough section. Therefore, the trough section will guide the rainwater to the eaves of the roof (*See Specification; Page 46, lines 3-15*).

Thus, Yoshitaka does not disclose or suggest each and every element of the present invention as required by amended independent Claim 1, and the ancillary references do not remedy the deficiencies of Yoshitaka.

Since the applied references fail to disclose, teach or suggest the above features recited in amended independent Claim 1, those references cannot be said to anticipate nor render obvious the invention which is the subject matter of that claim.

Accordingly, amended independent Claim 1 is believed to be in condition for allowance and such allowance is respectfully requested.

The remaining claims depend either directly or indirectly from amended independent Claim 1 and recite additional features of the invention which are neither

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disclosed nor fairly suggested by the applied references and are therefore also believed to be in condition for allowance.

Conclusion

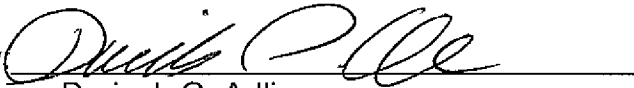
In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Reexamination and reconsideration of the application, as amended, are requested.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (310) 785-4721 to discuss the steps necessary for placing the application in condition for allowance.

If there are any fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-1314.

Respectfully submitted,
HOGAN & HARTSON L.L.P.

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